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EXAMINER
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ART UNIT	PAPER NUMBER
3661	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,477	OBRADOVICH, MICHAEL L.	
	Examiner	Art Unit	
	Eric M Gibson	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/18/03; 7/30/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. The restriction requirement in the prior Office Action (mailed 6/25/2004) was based upon a previously canceled version of claims. Claims 21-42 are now pending and the restriction requirement is WITHDRAWN.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

a. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

b. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 21-27 and 32-38 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,703,944 B1 in view of Bonar (US004692764A).

a. As per claims 21-27 and 32-38, the '944 patent teaches (claim 1):

> A method for use in a system in a vehicle, the system including a display element, the method comprising: providing at least one indicator on the display element; allowing a manipulation of the indicator on the display element to define a distance between the vehicle and a detectable object outside the vehicle, the defined distance being indicated on the display element, the manipulation of the indicator being restricted from defining the distance to be smaller than a reference distance, the reference distance being indicated on the display element and a function of a current speed of the vehicle relative to the detectable object; determining whether a separation between the vehicle and a detectable object outside the vehicle is maintained at least the defined distance; and providing an alert when it is determined that the separation of at least the defined distance is not maintained.

The '944 patent does not teach adjusting the distance. Many prior art systems exist wherein the desired separation distance is adjusted by the driver. One such exemplary system is that taught by Bonar. Bonar teaches an automatic range finder and remote controller braking system wherein the driver can manipulate an indicator in order to adjust the separation distance between the vehicle and an object to a desired value (16, figure 2). It would have been obvious to one of ordinary skill in the art, at the time of invention, to adjust the separation distance between the vehicle and a detected object to a driver desired value as is known and practiced in the art, as exemplified by Bonar, in order to allow the driver to set an alert for a desired distance.

c. As per claims 32-38, the '944 patent teaches (claim 7):

> A system for use in a vehicle comprising: a display element, at least one indicator being provided on the display element; an interface for manipulating the indicator on the display element to define a distance between

> the vehicle and a detectable object outside the vehicle, the defined distance being indicated on the display element, a manipulation of the indicator being restricted from defining the distance to be smaller than a reference distance, the reference distance being indicated on the display element and a function of a current speed of the vehicle relative to the detectable object; a processor for determining whether a separation between the vehicle and a detectable object outside the vehicle is maintained at at least the defined distance; and an output device for providing an alert when it is determined that the separation of at least the defined distance is not maintained.

The '944 patent does not teach adjusting the distance. Many prior art systems exist wherein the desired separation distance is adjusted by the driver. One such exemplary system is that taught by Bonar. Bonar teaches an automatic range finder and remote controller braking system wherein the driver can manipulate an indicator in order to adjust the separation distance between the vehicle and an object to a desired value (16, figure 2). It would have been obvious to one of ordinary skill in the art, at the time of invention, to adjust the separation distance between the vehicle and a detected object to a driver desired value as is known and practiced in the art, as exemplified by Bonar, in order to allow the driver to set an alert for a desired distance.

4. Claims 28-31 and 39-42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,703,944 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed definition of a "zone" around the vehicle in the instant application necessarily includes the patented limitation of a distance claimed in the '944 patent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 21, 22, 25, 26, 28-30, 32, 33, 36, 37, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chundrlik et al. (US005014200A) in view of Bonar (US004692764A).

a. As per claim 21, Chundrlik teaches a method for use in a system in a vehicle, including providing at least one indicator allowing a manipulation of the indicator to adjust a first distance relative to a reference distance to define a second distance (column 2, lines 53-64), the manipulation of the indicator being restricted from effecting an adjustment of the first distance to be less than zero, resulting in the second distance exceeding the reference distance by the first distance, the reference distance being a function of a current speed of the vehicle relative to a detectable object outside the vehicle (column 3, lines 17-26), determining whether a separation between the vehicle and a detectable object outside the vehicle is maintained at at least the second distance (52, figure 4), and providing an alert when it is determined that the separation of at least the second distance is not maintained (54, figure 4). Chundrlik does not explicitly disclose a display element, however, in the embodiment of the invention described by Chundrlik that uses an infinitely variable setting device, a display that shows the distance selected is required. One such compatible display with the Chundrlik invention

is disclosed by Bonar in figure 2. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include a display such as that used in the Bonar invention, as a necessary element to show the selection of the separation distance in the system and method of Chundrlik.

b. As per claim 22, Chundrlik teaches that the distance is measured from the front of the vehicle (see figure 1).

c. As per claim 25, Chundrlik teaches that the detectable object is a second vehicle (see figure 1).

d. As per claim 26, Chundrlik teaches the distance is manipulatable by turning the indicator (column 62-64).

e. As per claim 28, Chundrlik teaches a method for use in a system in a vehicle, including providing at least one indicator allowing a manipulation of the indicator to adjust a first zone surrounding the vehicle (column 2, lines 53-64), the manipulation of the indicator being restricted from effecting an adjustment of the first zone to be smaller than a second zone being a function of a current speed of the vehicle relative to a detectable object outside the vehicle (column 3, lines 17-26), determining whether a separation between the vehicle and a detectable object outside the vehicle is infringing on the first zone (52, figure 4), and providing an alert when it is determined that a detectable object is infringing on the zone (54, figure 4). Chundrlik does not explicitly disclose a display element, however, in the embodiment of the invention described by Chundrlik that uses an infinitely variable setting device, a display that shows the distance selected is required. One such compatible display with the Chundrlik invention

is disclosed by Bonar in figure 2. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include a display such as that used in the Bonar invention, as a necessary element to show the selection of the separation distance in the system and method of Chundrlik.

f. As per claim 29, Chundrlik teaches that the detectable object is a second vehicle (see figure 1).

g. As per claim 30, Chundrlik teaches the distance is manipulatable by turning the indicator (column 62-64).

h. As per claim 32, Chundrlik teaches a system for use in a vehicle including at least one indicator and an interface for allowing a manipulation of the indicator to adjust a first distance relative to a reference distance to define a second distance (column 2, lines 53-64), the manipulation of the indicator being restricted from effecting an adjustment of the first distance to be less than zero, resulting in the second distance exceeding the reference distance by the first distance, the reference distance being a function of a current speed of the vehicle relative to a detectable object outside the vehicle(column 3, lines 17-26), a processor for determining whether a separation between the vehicle and a detectable object outside the vehicle is maintained at at least the second distance (52, figure 4), and an output device for providing an alert when it is determined that the separation of at least the second distance is not maintained (54, figure 4). Chundrlik does not explicitly disclose a display element. However, in the embodiment of the invention described by Chundrlik that uses an infinitely variable setting device, a display that shows the distance selected is required. One such

compatible display with the Chundrlik invention is disclosed by Bonar in figure 2. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include a display such as that used in the Bonar invention, as a necessary element to show the selection of the separation distance in the system and method of Chundrlik.

i. As per claim 33, Chundrlik teaches that the distance is measured from the front of the vehicle (see figure 1).

j. As per claim 36, Chundrlik teaches that the detectable object is a second vehicle (see figure 1).

k. As per claim 37, Chundrlik teaches the distance is manipulatable by turning the indicator (column 62-64).

l. As per claim 39, Chundrlik teaches a system for use in a system in a vehicle, including providing at least one indicator allowing a manipulation of the indicator to adjust a first zone surrounding the vehicle (column 2, lines 53-64), the manipulation of the indicator being restricted from effecting an adjustment of the first zone to be smaller than a second zone being a function of a current speed of the vehicle relative to a detectable object outside the vehicle (column 3, lines 17-26), a processor for determining whether a separation between the vehicle and a detectable object outside the vehicle is infringing on the first zone (52, figure 4), and an output device for providing an alert when it is determined that a detectable object is infringing on the zone (54, figure 4). Chundrlik does not explicitly disclose a display element, however, in the embodiment of the invention described by Chundrlik that uses an infinitely variable setting device, a display that shows the distance selected is required. One such

compatible display with the Chundrlik invention is disclosed by Bonar in figure 2. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include a display such as that used in the Bonar invention, as a necessary element to show the selection of the separation distance in the system and method of Chundrlik.

m. As per claim 40, Chundrlik teaches that the detectable object is a second vehicle (see figure 1).

n. As per claim 41, Chundrlik teaches the distance is manipulatable by turning the indicator (column 62-64).

6. Claims 23, 24, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Chundrlik and Bonar as applied to claims 21 and 32 above, and further in view Ben Lulu (US005583495A)

a. As per claims 23, 24, 34, and 35, the combination teaches the invention as explained in the rejection of claims 21 and 32. The combination discloses detecting an object in front of the vehicle. Ben Lulu teaches a vehicle alarm system that discloses a system for detecting objects in the rear and to the sides of a vehicle (column 1, lines 5-35), in order to provide an alarm to the driver of objects in the vehicle's blind spot. It would have been obvious to one of ordinary skill in the art, at the time of invention, to apply the principles of object detection and alert in the combination to the rear and sides of a vehicle, in order to provide an alarm to the driver of objects in the vehicle's blind spot, as taught by Ben Lulu.

7. Claims 27, 31, 38, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination as applied to claims 21, 28, 32, and 39 above, and further in view of Duncan et al. (US004240152A) and Satake et al. (US004103278A).

a. As per claims 27, 31, 38, and 42, the combination teaches the invention as explained in the rejection of claims 21, 28, 32, and 39. The combination does not teach indicating the detectable object on the display element. Duncan teaches an object indicator for moving vehicles which discloses that other arrangements for the display of object location and warning alarms will occur to those skilled in the art (column 4, lines 15-17). One such system in the prior art that discloses indicating the detectable object on the display element is Satake, wherein the display element (13) indicates the presence and position of a detected object to the driver (column 7, lines 24-25). It would have been obvious to one of ordinary skill in the art, at the time of invention, to indicate the detectable object on the display element in the system of the combination, as a known method of obstacle recognition and warning, as evidenced by Duncan and specifically exemplified in Satake.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hinde (US006483441B1) teaches a distance indicating device and method. Urai et al. (US006157294A) teaches a vehicle obstacle detecting system. Agravante et al. (US005767793A) teaches a compact vehicle based rear and side obstacle detection system including multiple antennae. Kinoshita et al. (US005642093A) teaches a warning system for a vehicle. Kajiwara (US005432509A)

teaches a warning apparatus for a vehicle. Katiraie (US005347273A) teaches an adjustable, ultrasonic collision warning system. Etoh (US004670845A) teaches a system and method for automatically controlling vehicle speed. Sampey (US003796864A) teaches a vehicle separation measuring system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG

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PRIMARY EXAMINER